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# **Employment relations and social stratification in contemporary urban China: Does Goldthorpe's class theory still work?**

**Min Zou**

## **Abstract**

Goldthorpe's class theory suggests that social class arises from employment relations in industrialised societies. This article assesses whether class in urban China can be approached from the same perspective by addressing three issues: 1) whether employment relations can capture China's class structure, 2) how differently class is shaped by occupational structure in China, and 3) how useful class is to help us understand income inequality. Based on a recent Chinese social survey, the analysis finds three clusters of Chinese employees that fit into the 'service', 'intermediate' and 'labour contract' class typologies suggested by Goldthorpe's class theory. Also, there is evidence that class links to occupational structures in a similar way between Chinese and Western societies. Finally class, when directly measured from employment relations, displays a reasonable degree of explanatory power for inter-class income inequality whereas the Goldthorpe class classification fails to differentiate between intermediate and labour class positions.

Key words: China, employment relations, latent class analysis, social class, stratification

## **Introduction**

Social class in transitional China has received increasing academic attention over the past decade. This continued interest has produced a large number of studies on social stratification in China (see for example Bian et al., 2005; Lin and Wu, 2009; Wu, 2013; Wu and Treiman, 2007). Although general consensus is lacking, Goldthorpe's definition of social class has been widely used in class analysis in the Chinese context. According to Goldthorpe (2007), social class arises from inequality in production units and reflects similarities in labour market situations between individuals.

It is not difficult to understand why Goldthorpe's class theory is popular. As Oesch (2003) suggests, this conceptualisation has a clear rationale to distinguish class positions from the employment relations perspective and has proven to be very useful in empirical inquiries in industrialised societies. However, despite its popularity, there are some serious questions that need to be addressed before it can be used as a valid concept in the Chinese context. A first, and perhaps the most fundamental, question is whether the employment principles, which lay

out the theoretical foundations of Goldthorpe's class theory, are formulated on a similar basis between China and Western societies. If not, one might wonder, quite naturally, to what extent employment relations still present a valid approach to social class in China.

We have good reasons to ask these questions. China, as a transition economy, differs significantly in economic institutions and labour market regulations from Western economies. In contrast to the capitalistic system characterised by private ownership and free markets, China's reforms have aimed to create a 'socialist market economy' in which political power persists in economic activities. Moreover, while labour market regulations are well established in industrialised countries, China's legal framework governing work and employment relations is still under development. All these suggest labour market dynamics may evolve in quite different ways in China compared to the Western world. If this is the case, the validity of Goldthorpe's class theory in the Chinese context will be readily challenged and the contributions of previous research re-assessed.

Surprisingly, in contrast to the flourishing of research on class in China, very limited effort has been made to address these issues in the literature. Researchers seem to have simply taken the face value of Goldthorpe's class theory and used it in the Chinese context without seriously investigating into whether the theoretical foundations still hold in the new setting. This article aims to bridge this gap by investigating empirically whether class can be understood from the employment relations perspective in urban China. Specifically it seeks to address three issues. First, can class be defined by employment relations in China? Second, how does the way class positions are linked to occupations differ between China and Western societies? Finally, how useful is this concept to help us understand income inequality in China? Answering these questions will not only shed new light on the generality of this influential class theory but also help us achieve a better understanding in the relationship between employment relations and social stratification.

## **The conceptualisation of Goldthorpe's class**

The significance of class lies in the fact that it links individuals' market positions to inequality of life chances (Breen, 2005). Erikson and Goldthorpe (1992: 37) argue that classes 'differentiate positions within labour markets and production units, or, more specifically, one could say, to differentiate such positions in terms of the employment relations that they entail'. Goldthorpe's class theory classifies individuals into three categories: the employers, the self-employed and employees and suggests that the employee category should receive particular attention because this category represents an overwhelming proportion of the working population in modern societies and there are significant variations in the ways labour is exchanged for market returns within this category.

Among employees, a further distinction is placed between those in jobs regulated by a labour contract and those by a service contract. The labour contract entails specific, short-term, exchange relationships between employee and employer regarding how work is rewarded. Under this contract, 'employees supply more-or-less discrete amounts of labour, under the supervision of the employer or of the employer's agents, in return for wages which are calculated on a 'piece' or 'time basis'' (Erikson and Goldthorpe, 1992: 41). The service

contract, in contrast, involves long term and diffuse exchange relationships in which work is not only rewarded by wages but also by career advancement opportunities from the employer, in return for commitment and loyalty. Under this contract, ‘employees render service to their employing organisation in return for ‘compensation’ which takes the form not only of reward for work done, through a salary and various perquisites, but also comprises important prospective elements – for example, salary increments on an established scale, assurances of security both in employment and, through pensions rights, after retirement, and above all, well-defined career opportunities.’ (Erikson and Goldthorpe, 1992: 41-2). In addition to this labour-service distinction, there also exists a set of occupations that contain the attributes of both contract types which are known as the intermediate classes. A brief description of the Goldthorpe class classification<sup>1</sup> is shown in Table 1.

TABLE 1 HERE

The rationale of Goldthorpe’s class theory lies in the way employers motivate employees to act in the best interests of the organisation. Goldthorpe (2007: ch. 5) argues that the employer-employee dynamics can be understood from two dimensions: 1) difficulty of monitoring the work that employees perform and 2) amount of specific skills that employees possess. For jobs that are easy to monitor and require low skills, the employment relations are regulated by a labour contract as the employees can be rewarded based on their productivity. For jobs that are difficult to monitor and require high levels of specific skills, a service contract is in place as trust and incentives are required on the part of employee to perform the tasks properly. Finally, employment relations arising from jobs with mixed levels on these two dimensions will entail a mixed contract.

Previous research has shown that Goldthorpe’s class theory works well in identifying occupational groups with similar market situations in Western societies. Evans (1992, 1996), for example, finds that employment conditions, promotion prospects and work autonomy differ significantly between Goldthorpe classes in Britain. Evans and Mills (1998a, 1998b, 2000) also report that there is a great deal of overlap between Goldthorpe’s classes and the employee clusters with similar work conditions. In addition to their British studies, Evans and Mills (1999) compare the class positions across Britain, Poland and Hungary and find they are very similar between the two former communist countries and Britain.

Recently, however, the strength of Goldthorpe’s class theory has been under sustained attack. One criticism is that Goldthorpe’s approach has overlooked the heterogeneity within occupations which leads to concerns about the validity of the employment-based class classification in different societies. Oesch (2006), for example, argues that Goldthorpe’s class theory gives a too simplistic view on middle class, ignoring the important within-class variation in employment conditions. Savage et al. (2013) also point out that there are real cross-national differences with respect to how jobs are organised and the same category in Goldthorpe’s class classification might refer to different occupational realities between countries.

A good class theory, as one would expect, should be indeed generic to a wide range of societies and not just applicable to one particular country. Evans and Mills’ multi-country validation studies of Goldthorpe’s class theory are a promising step forward. However, it still

remains questionable whether class is formed on a similar basis of employment structure in other societies, particularly outside Europe where significant variations in institutional arrangements in the labour market are expected to be found. The primary aim of this article is to assess the extent to which class can be approached from the employment relations perspective in such a country – China.

## **The Chinese context**

China differs from the Western societies in political and economic institutions in a number of ways. First, despite thirty years' reform, political power still holds a central position in China's contemporary economic life. China is a transition economy, shifting from a centrally planned economy to a market oriented system. Before the transition, production and investment were solely organised by the State through central planning. Since 1978, China has undertaken a series of economic reforms and, as a result, the market has become a major force in shaping China's economy (Tisdell, 2009). However, as Liu (2009) suggests, the Chinese Communist Party has never intended to clone a fully Westernised system; instead, they have aimed to build a 'socialist market economy', a defining characteristic of which is the predominance of political power in market activities. In contrast to the Western markets where the political intervention is minimised, various levels of Chinese government administration remain active players in the economy (Xie and Wu, 2008). On the one hand, they directly participate in the market activities through state owned enterprises (SOEs); on the other hand, the administrative power sets market entry rules, manages the private sector and provides unequal treatment between state and non-state divisions (Liu, 2009).

The state owned sector therefore forms a unique driving force behind class formation in urban China. By 2006, the state sector represented 29.7 per cent of China's total GDP and employed about 30 per cent of the urban labour force (Lee, 2009). Many SOEs have managed to prosper through their advantaged market position with enhanced abilities to reward its employees (Wu, 2013). More importantly, unlike private firms, most SOEs still see welfare provision, alongside revenue generation, as a fundamental function to fulfil. Xie et al. (2009) suggest that this is because the traditional dependency management-labour relationship has been largely retained in SOEs in which the management seeks cooperation from labour in production and the labour extracts recourses from management for wellbeing. SOEs redistribute a greater proportion of profit in the forms of bonuses and fringe benefits than do private firms to boost identity and harmony among employees (Xie and Wu, 2008). The state workers therefore often have access to a wider range of attractive benefits packages such as subsidised meals, children's education fees and accommodation allowance, than their counterparts in the non-state sector (Xie and Wu, 2008; Xie et al., 2009; Wu, 2013).

Another important factor that differentiates China from the Western societies is the legal system that regulates work and employment relations. In the planned economy, China did not have a labour market, all jobs being allocated through the planning system. The marketisation reforms started in the late 1907s but it was not until 1994 that China enacted its first national Labour Law. After two decades of development and practice, China's labour market regulations still face many challenges, some of which have significant implications over

social stratification. A prominent issue is that workers are treated differently based on their household registration in the legal system. Due to their non-urban resident status, for example, migrant workers from the rural areas have had restricted employment opportunities in China's cities and been excluded from the government's labour policies for a long time (Ngok, 2008). Before 2008, China's Labour Law did not even purport to include those workers under its protection (Li, 2008). Consequently, most migrant workers do not hold a labour contract with their employer and have very limited access to decent working conditions (Zhou, 2013). In contrast, local urban workers enjoy wider access to employment resources and are more likely to occupy jobs with better income, welfare and legal protection (Cooney, 2006).

In addition to the discrimination against migrant workers, China's legal regimes are also segmented across sectors. While state sector workers are better protected, those in the private sector, especially in small firms, are less likely to receive similar levels of legal protection (Ngok, 2008). This is also reflected in the contrasting proportions of workers who have signed labour contracts with their employers between the sectors. Whilst the labour contract system has been well implemented in the state sector, only about 13 per cent in the non-state sector have signed written contracts with their employers (Cheng et al., 2014). Although China's new Labour Contract Law enacted in 2008 attempts to prohibit discrimination between different groups of workers or sectors and give equal rights to everyone in the labour market, the full social impact remains to be seen and the legal framework will continue to serve as an important source of social stratification in China in the foreseeable future.

## **Data and method**

The data for analysis is taken from the 2006 China General Social Survey (CGSS). The CGSS is an annual or biannual survey designed to gather data on social trends and quality of life in China. A multi-stage stratified random sampling approach is used throughout the survey to ensure the representativeness of the data (for more information, see Bian and Li, 2012). The 2006 CGSS surveyed 10151 respondents aged between 18 and 69 from rural and urban areas (except Tibet), with a response rate of 51.1 per cent. The employment module in the 2006 CGSS provides rich information on labour market activities and covers a wide range of topics on employment relations that are key to identifying class positions, making it an ideal data source for our investigation.

The 2006 CGSS contains 3109 respondents from the urban areas and 3451 respondents from the rural areas who are currently in employment. Because the employment questions in the rural sample vary depending on the nature of respondents' work activities and more importantly, some key questions (for example, the way salary is determined) are only asked in the urban sample, we restrict our estimating sample to full-time employees from urban areas. China's current labour law defines full-time employment as work that exceeds 24 hours per week and the legal working ages are 18 to 60 for men and 18 to 55 for women, respectively. Given this, only those respondents who satisfy those criteria are selected into our sample. In addition, we also exclude farm labour from urban areas which only compose less than 1 per cent of the sample. Applying these criteria leaves us with a sample of 2141

eligible respondents. Finally, after population weights are applied, our final estimating sample consists of 1522 observations.

We use latent class analysis (LCA) to look for employee clusters that potentially reflect class positions. The analytical approach takes three steps. First, we use job characteristics that define class in Goldthorpe's theoretical work as indicators in LCA and look for meaningful employee clusters as a means of measuring class. Examining these job characteristics will allow us to assess, based on the stereotypes of Goldthorpe's classes, the extent to which class can be defined by employment relations in China. We then map these clusters onto the pre-defined Goldthorpe's class classification to examine how far these two groupings overlap with each other. Goldthorpe's class classification is derived from the linkage between occupational structure and class positions based on the principles of the British labour market and if class positions are shaped by occupational structure in a similar way in China, we would expect to see a close correspondence between the two class variables – that is, people with similar occupations are clustered into same class positions and the pattern holds between the two societies. Finally, we compare the associations of income and benefits with the two class variables to assess the predictive power of Goldthorpe's class for income inequality in urban China.

Previous research has identified two broad groups of job characteristics that define class positions. These include employment conditions and career prospects (Evans, 1992; Evans and Mills, 1998b, 1999). More recently, Goldthorpe (2007: ch. 5) suggests that employers' intention to monitor employee performance and employees' skills are the two driving forces behind class formation. We use all these four types of variables from the 2006 CGSS:

- 1) Employment conditions:
  - i. How are the respondent's working hours arranged (WORKHR)?
  - ii. Whether or not the respondent gets paid for overtime work (OVERTIMEPAY).
  - iii. How is the respondent's monthly salary determined (SALARY)?
- 2) Career prospects:
  - i. How likely is it for the respondent to be promoted within the organisation in the coming years (PROM)?
- 3) Employer monitoring:
  - i. How frequent does the respondent's line manager check the progress or quality of their work (MONIT)?
- 4) Employee skills:
  - i. How long does it take for the respondent to learn the skills to do the current job well (SKILL)?

The 2006 CGSS contains respondents' occupational information coded into the 1988 International Standard Classification of Occupations (ISCO-88). We use this information to construct the pre-defined Goldthorpe's class classification (Ganzeboom and Treiman, 1996).



After excluding self-employed (IV) and farm labour (VIIb), the final Goldthorpe class variable in our sample contains the following seven categories:

- I: Higher-grade professionals, administrators, and officials; managers in large industrial establishments
- II: Lower-grade professionals, administrators, and officials, higher-grade technicians; managers in small industrial establishments; supervisors of non-manual employees
- IIIa: Routine non-manual, higher grade
- IIIb: Routine non-manual, lower grade
- V: Lower-grade technicians; supervisors of manual workers
- VI: Skilled workers
- VIIa: Semi-skilled and unskilled manual workers

Finally, class is one of the most important sources of income inequality in social life (Erikson and Goldthorpe 2010; Weeden et al. 2007). As such, we would expect to see a theoretically meaningful association between the two variables. In addition to income, employee benefits represent important aspects of extrinsic job rewards and can vary across sectors in China (Wu, 2013). In the survey, respondents are asked to indicate whether their employer provide with them the following benefits: 1) free medical care, 2) basic health insurance, 3) complementary health insurance, 4) basic pension, 5) complementary pension, 6) unemployment insurance and 7) housing allowance. We use these variables to test their association with class as well. Income and benefits are coded as follows:

- 1) Monthly income (RMB): 499 or less, 500–999, 1000–1499, 1500–1999, 2000–2499, 2500–2999, 3000–3999, 4000–4999, 5000 or more (INCOME).
- 2) Number of benefits: No benefits, 1–2, 3–4, 5 or more (BENEFIT).

In Table 2, we present the indicators and outcome variables, together with the Goldthorpe class classification. Examination of the table, however, reveals that some of the indicators have a large number of response categories and this leads to the concern about the reliability of the LCA model fit statistics as a guide in model selection. This is because the  $\chi^2$  and  $G^2$  fit statistics do not follow the theoretical chi square distribution when the data is highly sparse. In our data, there are 1522 observations whereas the contingency table contains 4608 cells. In order to reduce the number of cells, we recode WORKHR into a dichotomy, distinguishing between ‘completely fixed with no flexibility’ and the other two responses indicating ‘some’ or ‘complete’ flexibility. We also collapse PROM into two categories by combining ‘Very likely’ with ‘Likely’ and ‘Unlikely’ with ‘Very unlikely’. Finally, we pair up the responses and convert the eight-category MONIT and SKILL into two four-category indicators. After the collapsing, we managed to reduce the 4608 cells to only 384 cells with 1522 observations.

TABLE 2 HERE

## Results

We start with the independence model assuming all indicators are independent, followed by three further models in which the presence of two, three and four latent classes is assumed respectively to account for the associations among the observed indicators. Table 3 reports the fit statistics of these LCA models. As we can see, the  $\chi^2$  and  $G^2$  values suggest that both three-class and four-class solutions fit the data well. Based on the principle of parsimony, the three-class model is selected for further analysis.

#### TABLE 3 HERE

Table 4 summarises latent class probabilities and item probabilities conditional upon class membership for the three-class model. Although not perfectly neat, this LCA model does seem to capture some cross-class variations in job attributes that correspond well to Goldthorpe's theoretical thinking on class classifications. Latent class 1, about 8 per cent of the sample, is composed of respondents whose jobs are more of the service contract nature whereas respondents in latent class 3, roughly half of the total sample, appear to have the labour contract type of jobs. The remaining latent class 2, about 41 per cent, is somewhere in between, singling out respondents from the intermediate class positions.

#### TABLE 4 HERE

A close look at the conditional probabilities across the six indicators reveals the following patterns. An overwhelming proportion of respondents in Class 1 have total or partial flexible working hour arrangements (WORKHR) and a similar proportion claim that they receive no pay for overtime work (OVERTIMEPAY). Their monthly salary (SALARY) is least related to the amount of work or job performance. They have some opportunities to be promoted within the organisation (PROM) in the coming years but the likelihood is not too high. They seem to enjoy the greatest work autonomy (MONIT) among the three classes – about four fifths of them report that their line managers would check their work quarterly or less frequently. Moreover, the majority of respondents in Class 1 take more than one month, with over a third over a year, to learn necessary skills (SKILL) to do the job well. Class 3, on the other end of the spectrum, have the opposite response patterns. About two thirds of them have no flexibility in working hours at all. They tend to receive pay for overtime work and their salary is more directly related to work load or immediate job performance. Nearly none of them have a promising promotion prospect. Their work is closely monitored and does not require much skill. Finally, Class 2 is somewhat intermediately positioned with most their responses taking the middle point between those two classes above.

These patterns fit into Goldthorpe's class stereotypes rather well. However, there are also some unexpected patterns in Table 4. Class 2, the intermediate class, for example, has a higher proportion of members that receive pay for overtime work than Class 3, the labour contract class. At the first glance, it is also counter intuitive that respondents in Class 1, the service class, have poorer career advancement prospects than their intermediate counterparts. Finally, the 'learning time to do job well' question receives polarised answers from the service class respondents. Although one third of them suggest they need at least one year,

about the same proportion claim they only need a few days or less to learn the skills which is very similar to that of labour contract class respondents.

Some further thoughts and investigations suggest these findings might not be totally surprising. Firstly, working overtime is extensively regulated by the labour law in China. Workers with standard working hour arrangements are entitled to overtime pay if they work extra hours. Inspection of the data reveals that over two thirds of the respondents in Class 3 do not hold an employment contract with their employer, the highest among the three classes and further analysis shows they are nearly three times more likely to receive no pay for overtime work than those with an employment contract. It appears that, therefore, the lower than expected ratio of overtime pay in Class 3 is probably due to the lack of labour protection for those working class workers.

Regarding promotion prospects, one explanation for the fact that the intermediate class respondents are better off than their service class counterparts is that these two groups of employees are at different career stages. While the latter is already relatively advanced, the former expect more room for further development.<sup>2</sup> This is consistent with what Evans and Mills (1998b) have found in their British study. A similar logic can be applied to the polarised responses to the ‘learning time’ question for the service class respondents in Class 1. While it is reasonable to assume that service class jobs typically involve long and complex processes of training, the learning curve would be less steep for those experienced employees. To test this, we examined the respondents’ experience before the current job and indeed we found a negative relationship between experience and learning time spent at work.

We now turn to assessing whether class can be defined in the same way by employment relationships between urban China and the Western societies. To achieve that, we add the pre-defined Goldthorpe class classification as a seventh indicator to the three-class LCA model. If the way employment relations shape class formation is consistent between urban China and Britain, we would expect to see the seven-category classification variable collapses neatly into the three latent type classes.<sup>3</sup> The results of this exercise are summarised in Table 5. We can see that the pre-defined Goldthorpe classes I and II map quite nicely onto latent class 1, the service class. Around 90 per cent of members of these two Goldthorpe classes are classified into Class 1, representing 75 per cent of the total population of that latent class. A similar degree of matching can be found between the two Goldthorpe working classes and latent class 3, the labour contract class. There are 90 per cent and 66 per cent of VI and VIIa falling into Class 3 respectively and they make up in total 89 per cent of the Class 3 population. The match between IIIab and latent classes is less good but still decent. For IIIa, there is an even split, around 45 per cent each, between latent classes 1 and 2, forming 11 per cent and 17 per cent of these two classes respectively. IIIb can be comfortably linked to latent class 2. About 81 per cent of IIIb can be found in Class 2 exclusively and the former constitutes over half of the latter. Finally, Table 5 suggests that Goldthorpe class V corresponds to latent class 1. An overwhelming proportion, roughly 88 per cent, of V belong to class 1, and they compose 6 per cent of the Class 1 population.

TABLE 5 HERE

The results show that there is a decent degree of correspondence between the pre-defined Goldthorpe class classification and the latent classes identified by LCA. This suggests that class and occupations are linked in a similar way between urban China and the West. Goldthorpe classes I/II and VI/VIIa occupy two ends (i.e., the service class and the labour contract class) of the class structure, while IIIb, together with a significant proportion of IIIa, compose the main body of the intermediate class. The finding that Goldthorpe class V almost exclusively belongs to latent class 1 seems somehow unexpected. Class V normally holds an intermediate status in the class system, containing some elements of both service and labour contract classes (Breen, 2005; Goldthorpe, 2007: ch. 5). It has empirically loaded onto the latent classes that reflect intermediate and labour contract class positions in previous validation studies (Evans and Mills, 1999, 2000). However, this is not totally surprising. Evans and Mills (1998b), for instance, find that the Goldthorpe classes V and II are not easily distinguishable with, the only obvious difference between the two being supervisory status – class V members are supervisors of manual workers whereas class I/II members supervise non-manual workers. Therefore, the convergence of I/II and V in our analysis seems to chime with Evans and Mills' finding and suggests that individuals in supervisory positions, regardless the type of subordinates they have, share similar class positions in urban China.

A final task of the investigation is to assess, more from the explanatory power perspective, how far Goldthorpe's class as an analytical concept can capture inter-class income inequality in urban China. To that end, we use a similar approach, namely, adding a seventh indicator, this time monthly income, to the three-class LCA model. Examining the association between income and the LCA class variable will reveal the effectiveness of Goldthorpe's class concept in capturing income inequality. In addition, we also check how income is associated with the pre-defined Goldthorpe class classification to assess the construct validity of this class measure. Considering that employee benefits also have monetary values and reflect significant aspects of job rewards in some sectors, particularly the state sector, we further examine the associations between benefits and the two class measures in explaining income inequality in the Chinese context. As class V controversially falls into the service class in the LCA models and only composes about 3 per cent of the total sample, we exclude this class from further analysis. In order to make the two class measures comparable, we collapse the Goldthorpe classification into a three-category class variable which contains the following categories: 1) I/II: Service, 2) IIIab: Routine non-manual and 3) VI/VIIa: Manual workers. The associations of the income and benefits with the two class measures are reported in Figure 1 and Table 6.

#### FIGURE 1 HERE

In Figure 1, we can see that three latent classes have an apparent association with income. There is clear discrimination between these classes and the pattern makes perfect sense – the service class, Class 1, has the highest income whereas the labour contract class, Class 3, has the lowest. The intermediate class, Class 2, stands somewhere in between. This pattern, however, does not hold for the Goldthorpe classification, where only two distinctive groups can be identified. As can be seen, the pre-defined Goldthorpe classes I/II remain the best paid

group. But the other two groups, classes IIIab and VI/VIIa, almost completely overlap with each other.

#### TABLE 6 HERE

Table 6 summarises the probability workers receive different number of benefits depending on their class membership. The pattern identified by LCA suggests the service and intermediate classes are on similar levels of benefits, with the latter slightly better, and the labour contract class is the worst among the three classes. While it is foreseeable that the labour contract class has minimum benefits, the intermediate class having better packages than the service class is a bit unexpected. Further analysis suggests that this is probably caused by the fact that there are about one third more respondents from the state sector in the intermediate class than those in the service class and welfare distribution is still an important function of SOEs in post-reform China (Xie and Wu, 2008). In the Goldthorpe class classification, I/II get the most benefits, followed by VI/VIIa and IIIab. The difference between VI/VIIa and IIIab is also counter-intuitive, but we again find VI/VIIa has more respondents from the state sector than does IIIab, which might be able to account for the unexpected pattern between the two classes.

Based on Figure 1 and Table 6 we can see that LCA has identified an apparent pattern across the three classes. The service class enjoys the highest income and is on relatively good benefits. They are clearly the winner. The intermediate class has middle-level income and also good benefits. The labour contract class has the lowest income as well as the least benefits and is therefore at the bottom of the hierarchical structure. The Goldthorpe class classification, compared to the LCA classes, has also found to be associated with income and benefits but much less theoretically meaningful – whilst those in the managerial and professional positions have the best overall packages, manual workers are better off than the routine non-manuals. This shows that although the LCA class measure captures inter-class income inequality quite nicely, the Goldthorpe class classification only singles out the service contract type but fails to detect the intermediate-labour contract differential in the Chinese context.

## Conclusions

This article has aimed to address the issue of whether class can be understood from the employment relations perspective suggested by Goldthorpe's class theory in contemporary urban China. Specifically, it has investigated three empirical questions about whether class can be defined by employment relations, how occupational structure shapes class positions, and the explanatory power of class for income inequality in the Chinese context. Class has been conceptualised and theorised in industrialised societies and addressing these issues in a context where the labour market institutions significantly vary from those in the West thus casts new light on the generality of this influential theory.

Using six job attributes of direct theoretical relevance to Goldthorpe's class conceptualisation, the analysis has identified three employee clusters in urban China through

LCA. Among these, two clusters occupy the two ends of the spectrum and have a close correspondence to the service and labour contract classes in Goldthorpe's theoretical writings. The third cluster has some mixed characteristics of the two polar classes which fits into the Goldthorpe intermediate class stereotype well. These results suggest that, similar to those in industrialised societies, class positions can also be defined by employment relations in contemporary urban China. When mapped onto the Goldthorpe class classification, a reasonable degree of overlap has been found between these employee clusters and the corresponding Goldthorpe classes, suggesting the way class is linked to occupational structure is quite similar between China and the West. Finally, this class concept has displayed some explanatory power for income inequality in China. This is particularly evident for the LCA class measure that differentiates clear patterns across class positions.

The analysis has also yielded some unexpected findings such as counterintuitive distributions on some indicators across classes, unsatisfactory correspondence between some Goldthorpe and latent classes as well as the blurred association of the Goldthorpe class classification with income. Although some may be explained by specific Chinese labour market conditions, some unexpected findings could also be caused by the recoded indicators in the LCA. Despite being an effective solution to the sparse data problem, collapsing response categories in indicators inevitably leads to some information loss which may mask some distinctive class patterns. More nuanced position may emerge if large samples are available. The mismatch between the LCA and Goldthorpe classes and the poor explanatory power of the Goldthorpe class classification for non-services class income inequality, however, do seem to point to some fundamental issues about the validity of this class concept in the Chinese context.

The first issue concerns where the Goldthorpe class V should be placed in the class structure. Class V is normally seen to have the intermediate status in theoretical discussions but it has been suggested that V may be indistinguishable from one of the service contract classes, II, without the information on supervisory status (Evans and Mills, 1998b). This is consistent with what we have found – an overwhelming proportion of class V members in our sample hold the same service type of labour contract as the I/II class members do. Secondly, our analysis has shown that the service-intermediate contract type boundary cuts through class IIIa instead of between II and IIIa as the class theory has suggested. This suggests that, in contrast to Britain where the service class is potentially inflated by the Goldthorpoe class classification (Evans and Mills, 2000), the classification tends to underestimate the size of the service class in urban China. Finally, the Goldthorpe classification, as an operationalisation of the class concept, seems to lack predictive power for income differentiation between intermediate and labour contract classes. Although class boundaries should not be drawn so as to maximise the predictive power of outcome variables (Evans and Mills, 2000), the fact that the LCA class measure does display some theoretically meaningful associations with income and benefits inevitably raises the question of whether an amendment of the Goldthorpe class classification is needed to better capture inter-class income inequality, especially between the intermediate and labour contract classes, in the Chinese context. After all, it is unlikely that the job titles based on the British labour market will completely mirror the employment relations in China.

When used in the Chinese context, Goldthorpe's class theory is often criticised for overlooking the role of non-market institutions, such as political power, legal norms or household registration system, in social stratification. Indeed we have found some evidence that these factors still, to varying degree, influence how resources are distributed in the Chinese labour market. As we have shown, many of our unexpected findings can be accounted for by these factors. Although developing a better class measure in China goes beyond the scope of this article, incorporating these variables into the analytical framework of China's stratification deserves further exploration. There are several new Chinese class schemas taking into account both market and non-market factors and initial validation studies on these schemas look rather encouraging (see Lin and Wu, 2009; Liu, 2009).

In the long run, however, we would expect to see China departs increasingly from the class structure driven by political forces and moves towards a market-based stratification system outlined in Goldthorpe's class theory. With marketisation deepening, the employment share of the state sector keeps declining, leading to less income inequality in China's urban areas (Xia et al., 2014). In 2008, China's first Anti-Monopoly Law came into force which intends to protect competition and provide a level playing field for all market players. Although still supporting certain SOEs in some strategic sectors, the law prohibits the SOEs from abusing their market position to compete with private firms. The latest Labour Contract Law was also enacted in 2008, aiming to treat everyone equally under the same legal framework. All these institutional changes suggest that a more open and market-oriented labour market is emerging in China.

In conclusion, the evidence revealed by this study has shown that despite the different economic and political institutions, class can be defined in a very similar way from the employment relationship perspective, as it is in Western societies, in urban China. This not only adds new evidence to the generality of the class theory but also validates its application in less developed or market-oriented economies. Although the principles that regulate employment relations in industrialised countries will not perfectly reflect the reward systems in less developed labour markets, Goldthorpe's class theory has laid a promising foundation on which a better understanding of the stratification in the Chinese society can be achieved.

## Notes

1 This is also known as the EGP class schema.

2 Class 1 contains a much larger proportion of respondents than the other two classes who replied 'Not applicable' to the promotion question.

3 This model returns a  $\chi^2$  of 9898.23 and a  $G^2$  of 3657.83 with 1469 degrees of freedom. The lack of model fit is due to the sparseness of the data after including the class variable. In order to test the fit of this model, we collapsed the Goldthorpe class classification into three categories corresponding to the LCA classes and added it as the new indicator. This model returned a satisfactory model fit.



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Table 1 The Goldthorpe class classification

Contract type	Goldthorpe class	
Service contract <sup>1</sup>	I	Higher-grade professionals, administrators, and officials; managers in large industrial establishments
	II	Lower-grade professionals, administrators, and officials, higher-grade technicians; managers in small industrial establishments; supervisors of non-manual employees
Intermediate contract <sup>2</sup>	IIIa	Routine non-manual, higher grade
	IIIb	Routine non-manual, lower grade
	IV	Small employers and self-employed
	V	Lower-grade technicians; supervisors of manual workers
Labour contract	VI	Skilled manual workers
	VIIa	Semi-skilled/unskilled manual workers
	VIIb	Agricultural/other workers in primary production

Notes:

1. Excludes large employers

2. Excludes small employers and self-employed.

Table 2 Indicators, Goldthorpe classes and outcome variables

Indicator	Response	Proportion
WORKHR (n=1522)	<sup>a</sup> Not at all fixed with complete flexibility	0.11
	<sup>a</sup> Basically fixed with some flexibility	0.33
	Completely fixed with no flexibility	0.56
OVERTIMEPAY (n=1471)	Yes	0.56
	No	0.44
SALARY (n=1418)	Directly related to amount of work or performance	0.40
	Partially related to amount of work or performance	0.19
	Not at all related to amount of work or performance	0.41
PROM (n=1252)	<sup>a</sup> Very likely	0.02
	<sup>a</sup> Likely	0.26
	<sup>b</sup> Unlikely	0.34
	<sup>b</sup> Very unlikely	0.39
MONIT (n=1480)	<sup>a</sup> Never	0.08
	<sup>a</sup> Annually or quarterly	0.12
	<sup>b</sup> Monthly	0.13
	<sup>b</sup> Once every half month	0.05
	<sup>c</sup> Weekly	0.11
	<sup>c</sup> A few times a week	0.12
	<sup>d</sup> Almost daily	0.29
	<sup>d</sup> Under direct supervision	0.10
SKILL (n=1522)	<sup>a</sup> One day	0.16
	<sup>a</sup> A few days	0.11
	<sup>b</sup> About one week	0.12
	<sup>b</sup> Nearly one month	0.11
	<sup>c</sup> One to three months	0.17
	<sup>c</sup> Over three months but less than one year	0.11
	<sup>d</sup> Over one year	0.10
	<sup>d</sup> Over three years	0.12
Goldthorpe class (n=1522)	I: Upper service	0.14
	II: Lower service	0.21
	IIIa: Routine non-manual, higher grade	0.11
	IIIb: Routine non-manual, lower grade	0.18
	V: Manual supervisors and technicians	0.03
	VI: Skilled manual workers	0.18
	VIIa: Semi- and unskilled manual workers	0.17
INCOME (n=1429)	499 or less	0.10
	500–999	0.32
	1000–1499	0.27
	1500–1999	0.12
	2000–2499	0.09
	2500–2999	0.02
	3000–3999	0.04
	4000–4999	0.01
	5000 or more	0.02
BENEFIT (n=1294)	No benefits	0.35
	1–2	0.17
	3–4	0.22
	5 or more	0.26

Table 3 Fit statistics for LCA models

Model	$\chi^2$	p.	G <sup>2</sup>	p.	d.f.
Independence	1656.61	0.00	1280.43	0.95	1367
2 classes	1497.37	0.00	1173.20	1.00	1355
3 classes	1414.33	0.09	1118.26	1.00	1343
4 classes	1335.47	0.46	1064.40	1.00	1331

Table 4 Class probabilities and item conditional probabilities for 3 class LCA model

	Class 1	Class 2	Class 3
<i>Class probabilities</i>	0.08	0.41	0.51
<i>Conditional probabilities</i>			
WORKHR			
Complete/Partial flexibility	0.84	0.47	0.35
No flexibility	0.16	0.53	0.65
OVERTIMEPAY			
Yes	0.20	0.68	0.51
No	0.80	0.32	0.49
SALARY			
Directly related to amount of work or performance	0.34	0.39	0.41
Partially related to amount of work or performance	0.08	0.31	0.11
Not at all related to amount of work or performance	0.57	0.29	0.48
PROM			
Likely/Very likely	0.17	0.54	0.06
Unlikely/Very unlikely	0.83	0.46	0.94
MONIT			
Never/Quarterly or annually	0.81	0.18	0.13
Once every half month/Monthly	0.12	0.23	0.15
A few times a week/Weekly	0.02	0.30	0.21
Daily/Under direct supervision	0.05	0.29	0.51
SKILL			
One day/A few days	0.35	0.12	0.37
About one week/Nearly one month	0.09	0.23	0.25
One to three months/Over three months but less than one year	0.21	0.33	0.26
Over one year/Over three years	0.36	0.32	0.11

Table 5 Estimated two way margins of 3 class LCA models by Goldthorpe class classification

		LCA					
		Column proportions			Row proportions		
		Class 1	Class 2	Class 3	Class 1	Class 2	Class 3
Goldthorpe class	I	0.91	0.08	0.00	0.30	0.04	0.00
	II	0.90	0.09	0.01	0.45	0.07	0.01
	IIIa	0.45	0.45	0.10	0.11	0.17	0.03
	IIIb	0.09	0.81	0.11	0.04	0.52	0.06
	V	0.88	0.00	0.12	0.06	0.00	0.01
	VI	0.10	0.00	0.90	0.04	0.00	0.53
	VIIa	0.02	0.33	0.66	0.01	0.20	0.36

Table 6 Estimated benefits by 3 class LCA model and Goldthorpe class classification

		LCA			Goldthorpe class		
		Class 1	Class 2	Class 3	I/II	IIIab	VI/VIIa
No benefits		0.28	0.19	0.54	0.16	0.37	0.26
1–2		0.16	0.21	0.15	0.16	0.15	0.17
3–4		0.24	0.26	0.17	0.27	0.22	0.27
5 or more		0.32	0.34	0.15	0.41	0.27	0.30

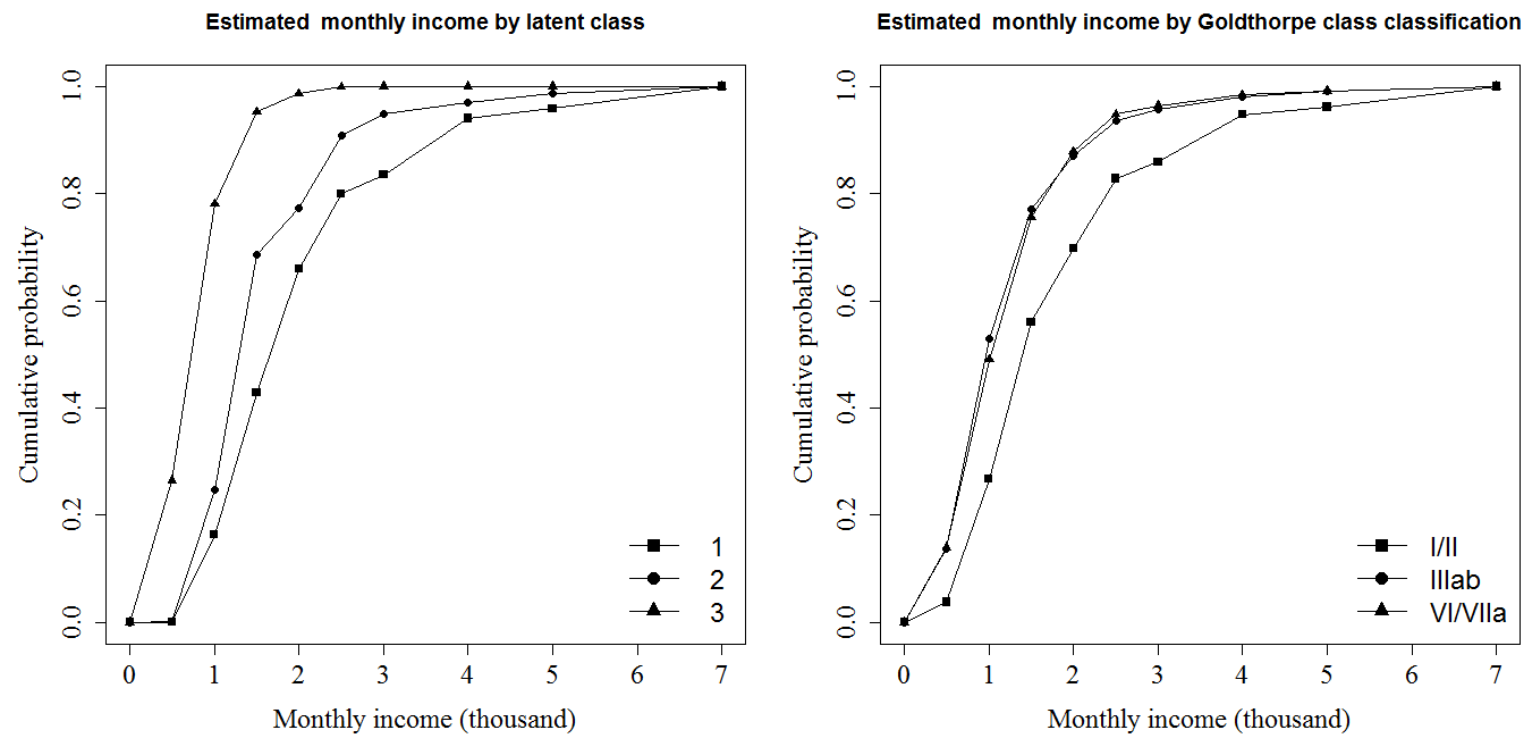


Figure 1 Estimated monthly income by latent class and Goldthorpe class classification

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